

Aura mechanics

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all you need to spin your dreams...

Majacraft Aura Mechanics

Description of Aura Tensioning

How to use the tensioning system on your new Majacraft Aura.

Because this wheel uses a modified double drive system, you will find that it may be somewhat different from other wheels you have spun on.

There are however, still only two things you need to worry about when spinning, on ANY wheel:

1. Tension and Take up
2. Amount of Twist

These two things, and the relation between them, determine your yarn.

You can adjust for them in several ways; Altering your treadling speed, your drafting speed, or the easiest way, by adjusting your wheel.

The Aura Tension: Take up

Adjustments to the black band (Bobbin drive) results in changes to the strength with which the yarn is taken up onto the bobbin

- When the black band is loose it allows for slippage and reduces the uptake. Ideal for finer yarns.
- Loosen it by:
 - winding the adjuster knob out so there is no gap
 - lowering the entire spinning head
- When the black band is tight, there is less/no slippage on the bobbin drive and the uptake will be stronger and faster (for the given groove the black band is in). You can tighten it by:
 - Adjusting the tension knob to increase the gap between the adjuster block and the wheel
 - Raising the spinning head

For general spinning tension, you shouldn't need to raise or lower the spin head frequently, but you do need to have it at a suitable height to allow the range of adjustment you want with the adjuster knob. Various combinations of spin head height together with the use of the tension adjuster should give you all the variables you need to spin anything from lace to super bulky. In practice you can probably leave your spinning head in one position and get all the adjustment you need with the adjuster knob and pulley groove choice, only moving the head up or down for the more extreme yarn variations.

Adjusting the Amount of Twist

The Aura has a number of grooves in the pulleys, these give you adjustment options for controlling the amount of twist that is going into your yarn.

Twist is controlled by how long you allow it to build up in the yarn before feeding it onto the bobbin.

Use your green drive band (Flyer drive) to easily alter the amount of twist being added into your yarn by altering the speed at which the flyer rotates around the bobbin.

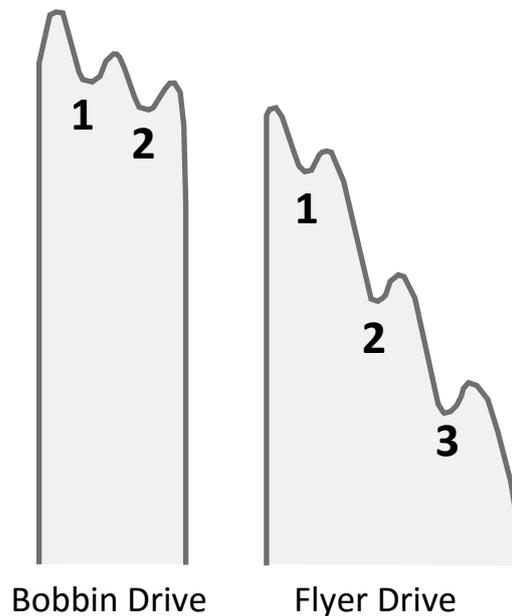
If your yarn is getting overtwisted (when it kinks up too much) then you need to increase the speed it is going onto your bobbin. If it is falling apart with not enough twist, or being pulled out of your hands and breaking, then you need to increase the time it stays in your hand by reducing the take up and speed of the wheel.

Use the following as a guide only, the best way to learn your wheel is to experiment, find the settings that match your own personal spinning style by trying different combinations of pulleys and tension.

Mix and Match!

The best way to open the creative doorways with this wheel is to experiment. Try a strong-pull with a slow speed, for example, and be amazed at the super chunky shaggy yarns that it will make with ease! Want a super thin silk yarn with beads? Try a high twist with medium-soft strength. The possibilities are endless! All it takes is a little bit of experimenting to find the proper combination to suit your specific fibres and ideas.

Drive Band Key



Examples

Sport weight yarn

Strength=MEDIUM (50% tension on Tension Adjust)

Speed=SLOW (Bobbin Drive groove 1, Flyer Drive groove 1)

The yarn will draw in fairly slowly with a medium pull. The spinning is slow, not too strong and very relaxing.

Lace weight yarn

Strength=WEAK (25% tension on Tension Adjust)

Speed=FAST (Bobbin Drive groove 1, Flyer Drive groove 2)

The yarn will draw in quickly but because of WEAK pull, lots of twist can be added and the pull is gentle.

Bulky yarn

Strength=STRONG (100% tension on Tension Adjust)

Speed=SLOW (Bobbin Drive groove 2, Flyer Drive groove 1)

The yarn will draw in very slowly. The pull is strong and even so the bulky yarn will be drawn in easily and a very even twist will be put in the yarn.



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How to Adjust Aura Bobbin Drive band

Remove the green Flyer Drive belt if it is on. It is assumed that the Bobbin Drive band is on

Turn the tension adjust knob at the side of the spinning head Adjust Block until it is at the mid-point of its movement. The extremes being the adjuster screw right in (Adjust Block fully open) and the Adjust Block sitting hard against the spinning head (fully closed)



Slightly loosen the JCB bolt that secures the head to the handle using your 4mm allen T wrench.

Now slide the head (up or down until the Bobbin Drive band is firm but not too tight. When the head is tightened, it will straighten up and put more tension on the Bobbin Drive band. This is why it is not necessary to make the bobbin drive super tight.



Now tighten the JCB bolt holding the head on.

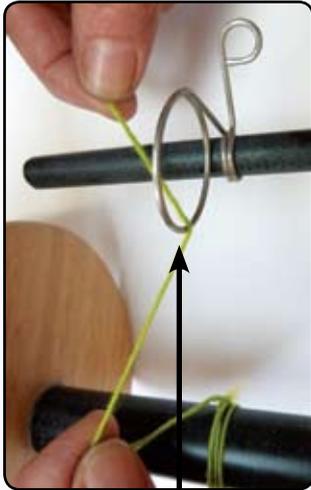
The Bobbin drive band should be quite tight now. You can screw the tension adjust knob out a bit to release the tension. When set like this, when the Adjust Block is fully closed, the Bobbin Drive belt should be very loose which equates to lots of slip on the Bobbin Drive (0% drive). When the adjuster screw is tightened to about half way through its movement, the Bobbin Drive belt should be quite tight which equates to 100% drive on the bobbin

Replace the green Flyer Drive belt on to the groove that is most suitable for your purpose.

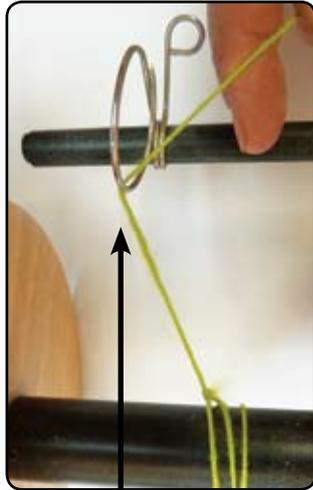
Now you can turn the tension adjust knob inward or outward to create the strength of pull that you require.



How to Thread the Aura Flyer



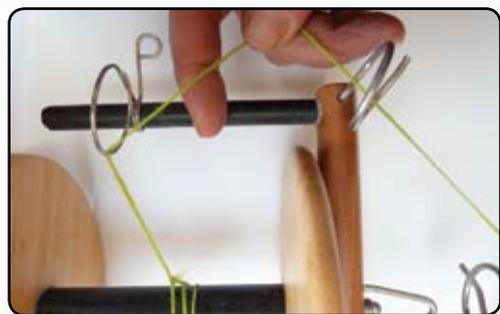
INCORRECT



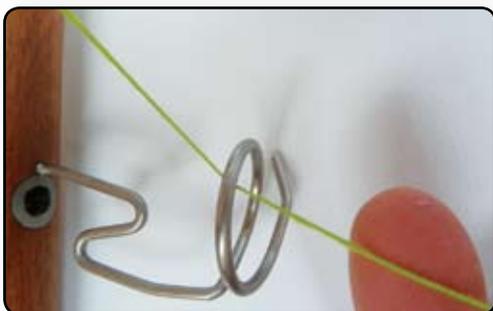
CORRECT

Pass the yarn through the large flyer hook on the flyer arm. The yarn goes in the ring from the flyer head side and out toward the orifice end of the flyer.

Thread the yarn through the ring on the end of the flyer bar. You can either push it straight through the ring or alternatively slip it through the pigtail.



If you are spinning fine yarn then take the yarn over the orifice close to the flyer bar, so it sits in the 'V' (delta) shaped angle, underneath, up between the 'V'. The delta is designed to hold the yarn still when spinning finer yarns.



If you are spinning a very large yarn then bypass the delta and go straight through the halo.

Now you can thread the yarn through the large halo ring.



And now the Aura flyer has been threaded.

